

STUDENT		
- ID:	String	
- firstName:	String	
- lastName:	String	
- transcript:	Transcript	
- advisor:	String	
- semester:	int	
- requestedCourse:	ArrayList<Course>	
+ getId():	String	
+ getFirstName():	String	
+ getLastName():	String	
+ getSemester():	int	
+ getTranscript():	Transcript	
+ getAdvisor():	String	
+ getRequestedCourses():	ArrayList<Course>	
+ setId(String id):	void	
+ setFirstName(String firstName):	void	
+ setLastName(String lastName):	void	
+ setSemester(int semester):	void	
+ setTranscript(Transcript transcript):	void	
+ setAdvisor(String advisor):	void	
+ setRequestedCourses(ArrayList<Course> requestedCourse):	void	
+ addRequestedCourse(Course course):	void	

JSON_PARSER		
- input:	JSONObject	
- courses:	ArrayList<Course>	
+ readCourses():	void	
+ getCourseObject(JSONObject courseJSON):	Course	
+ findCourse(String courseID):	Course	
+ getFirstNames():	ArrayList<String>	
+ getLastNames():	ArrayList<String>	
+ getAdvisors():	ArrayList<String>	
+ getCourses():	ArrayList<ArrayList<Course>>	

OUTPUT_JSON		
+ saveStudent(Student student):	void	
- getTranscriptHashMap(Transcript transcript):	Map	
- getJSONArrayofTakenCourses(ArrayList<TakenCourse> takenCourse):	Object	
- getJSONArrayofSelectionProblems(ArrayList<SelectionProblem> selectinProblem):	JSONArray	
- getRequestedCoursesHashMap(ArrayList<Course> requestedCourse):	JSONArray	

TRANSCRIPT		
- GPA:	float	
- takenCourses:	ArrayList<TakenCourse>	
- selectionProblems:	ArrayList<SelectionProblem>	
- takenCredit:	int	
- completedCredit:	int	
+ getGPA():	float	
+ getTakenCourse():	ArrayList<TakenCourse>	
+ addTakenCourse(TakenCourse takenCourse):	void	
+ calculateGpa():	void	
+ getCompletedCredit():	int	
+ getTakenCredit():	int	
+ getSelectionProblems():	ArrayList<SelectionProblem>	
+ addSelectionProblem(SelectionProblem selectionProblems):	void	
+ setSelectionProblems(ArrayList<SelectionProblem> selectionProblems):	void	
+ setTakenCredit(int takenCredit):	void	
+ findCourse(Course course):	TakenCourse	

COURSE		
- ID:	String	
- name:	String	
- prerequisite:	Course	
- prerequisiteID:	String	
- quota:	int	
- credit:	int	
- semester:	String	
+ getId():	String	
+ getName():	String	
+ getPrerequisite():	Course	
+ getPrerequisiteID():	String	
+ getQuota():	int	
+ getCredit():	int	
+ getSemester():	String	
+ setId(String ID):	void	
+ setName(String name):	void	
+ setPrerequisite(Course prerequisite):	void	
+ setPrerequisiteID(String prerequisiteID):	void	
+ setQuota(int quota):	void	
+ setCredit(int credit):	void	
+ setSemester(String semester):	void	

main
main():

RANDOM_STUDENT		
- names:	ArrayList<String>	
- lastNames:	ArrayList<String>	
- advisors:	ArrayList<String>	
- courses:	ArrayList<ArrayList<Course>>	
+ createRandomStudent(int semester):	Student	
- getRandomID():	String	
- getRandomFirstName():	String	
- getRandomLastName():	String	
- getRandomAdvisor():	String	
- getRandomTranscript(int semester, Student student):	Transcript	
- simulateGrades(ArrayList<Course> registeredCourses):	ArrayList<TakenCourse>	
- registerRequestedCourses(ArrayList<Course> requestedCourses, ArrayList<SelectionProblem> selectionProblems):	ArrayList<Course>	
- appendCoursesAtSemester(int semester, ArrayList<Course> requestedCourses)	void	

TAKEN_COURSE		
- course:	Course	
- takenCourseStatus:	String	
- grade:	float	
+ getCourse():	Course	
+ getTakenCourseStatus():	String	
+ getGrade():	float	
- setCourse(Course course):	void	
- setTakenCourseStatus(String takenCourseStatus):	void	
- setGrade(float grade)	void	

SELECTION_PROBLEM		
- ID:	int	
- notRegisteredCourse:	Course	
- description:	String	
+ getId():	int	
+ getDescription():	String	
+ getNotRegisteredCourse():	Course	
+ setId(int id):	void	
+ setNotRegisteredCourse(Course notRegisteredCourse):	void	
+ setDescription(String description)	void	